UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA MOBILITY LLC
Petitioner

v.

UNILOC 2017 LLC Patent Owner

IPR Case No. IPR2020-00038

U.S. Patent No. 6,868,079

DECLARATION OF ZHI DING, PH.D. IN SUPPORT OF PETITION FOR INTER PARTES REVIEW UNDER 35 U.S.C. § 311 ET SEQ. AND 37 C.F.R. § 42.100 ET SEQ. (CLAIM 17 OF U.S. PATENT NO. 6,868,079)



INTRODUCTION

- 1. My name is Zhi Ding. I have been retained as a technical expert on behalf of Motorola Mobility LLC to provide assistance in the above-captioned matter. I understand that Motorola Mobility LLC is the Petitioner in this proceeding. I have no financial interest in or affiliation with the Petitioner or the Patent Owner, which I understand is UNILOC 2017 LLC. My compensation does not depend upon the outcome of, or the specifics of my testimony in, this *inter partes* review proceeding or any litigation proceedings.
- 2. I have reviewed each of the following documents, which I am informed that some are also identified in the Petition.

Ехнівіт	DESCRIPTION
1001	U.S. Pat. No. 6,868,079 ("the '079 Patent")
1002	Prosecution History of the '079 Patent
1003	Merakos (U.S. Patent No. 5,521,925)
1004	Kay (U.S. Patent No. 5,299,198)
1005	Borth (U.S. Patent No. 4,829,543)
1006	Alamouti (U.S. Patent No. 5,933,421)
1008	Curriculum Vitae of Zhi Ding, Ph.D.
1009	Dahlman (U.S. Patent No. 6,606,313)
1010	Barnett (U.S. Patent No. 6,216,009)



1011	Raitola & Ranta, Comparison of Diversity Combining Techniques for GSM (1996).
1012	Zhang, A Bandwidth Reservation Multiple Access Protocol for Wireless ATM Local Networks (1997).
1013	Brennan, Linear diversity combining techniques (1959).
1014	Meierhofer, Priority scheduling algorithm for ATM wireless network access (1997).
1015	Simpson & Houts, Fundamentals of Analog and Digital Communication Systems (1971).
1016	Van Trees, Detection, Estimation, and Modulation Theory, Part I (Wiley 1968).
1017	Lee (U.S. Patent No. 5,301,333)
1018	Crisler (U.S. Patent No. 5,142,533)
1019	Andersson (U.S. Patent No. 5,604,744)
1020	Tobagi (U.S. Patent No. 4,503,533)
1021	Claim Construction Order
1023	Messerschmitt (U.S. Patent No. 5,267,244)
1024	Order Staying Apple Case
1025	Order Dismissing Samsung Case
1026	Order Staying LG Case
1027	Fenwick (U.S. Patent No. 4,001,692)
1028	Order Staying Motorola Case
1029	Atkinson (U.S. Patent No. 5,031,193)
1030	Raitola (U.S. Patent No. 6,445,757)



Ding Declaration re Petition for *Inter Partes* Review of U.S. Patent No. 6,868,079 (IPR2020-00038)

1031	Jasper (U.S. Patent No. 5,140,615)
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3. I understand that the application leading to U.S. Patent No. 6,868,079 ("the '079 Patent") was filed as U.S. Application No. 09/455,124 on December 6, 1999. This application claims priority to Great Britain Application No. 9827182, filed on December 10, 1998, which I have been asked to treat as the effective filing or priority date of the '079 Patent (also referred hereafter as the "Critical Date").

QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

- 4. I presently serve as a Professor in the Department of Electrical and Computer Engineering at the University of California, Davis. I have held this position since my appointment on July 1, 2000. I am also a private technical consultant on various technologies related to information systems. I have more than three decades of research experience on a wide range of topics related to data communications and signal processing.
- 5. I earned my Bachelor of Science degree in 1982 in wireless engineering from the Nanjing Institute of Technology (later renamed as Southeast University) in Nanjing, China. I earned my Master of Science degree in 1987 in electrical engineering from the University of Toronto in Toronto, Canada. I earned my Ph.D. in 1990 in electrical engineering from Cornell University in Ithaca, New York.



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